

7/29/04

Substitute
Specification
approved

SHW

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A DEVICE FOR AIR CLEANING FROM DUST AND AEROSOLS

Cross-Reference to Related Disclosure

10 The present application is a U.S. National Stage application claiming the benefit of prior filed International Application, serial number PCT/RU01/00247, filed June 21, 2001, which International Application claims a priority date of March 27, 2001 based on prior filed Russian Application serial number RU2001/107867.

Technical Field

15 The present invention relates to separation of disperse particles with the use of an electrostatic effect, to be more precise, the present invention relates to devices aimed at cleaning dust and aerosols from the air. The invention has applications in all fields of industry as well as in domestic rooms.

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Background art

25 One device contained in the prior art comprises a body with an air inlet and corona-forming and precipitation electrodes of opposite polarities. An electrostatic precipitation element is installed near the precipitation electrodes. The electrostatic precipitation element comprises two metal nets with precipitating fabric set in-between (for ref. see Inventor's Certificate of the USSR No. 921629, class B 03 C 3/08).

The above-mentioned known device does not avoid extraction of harmful positively charged acroions. Additionally, the system does not provide for saturation of cleaned air with molecules of aromatic or medical substances if necessary.

30 As to its principle of operation, the proposed device is closest to a device described in the Patent of Russian Federation No. 2159683, class B C 3/04 published in 2000. This known device comprises a body with an air inlet. Located inside the body are corona-forming and precipitation electrodes with opposite polarities, passive electrodes are set,